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NASM Personal Training Certification

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DANC 461: Sr. Thesis Project

NASM Personal Training Certification

Carrie Anne Whitelam

In partial fulfillment of
The Bachelor of Arts Degree in Dance
Loyola Marymount University
May 2, 2016

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Section 1: Genesis of the Project

When I first started to think about what I wanted to do for my senior thesis project, I had a few different ideas. I knew I wanted to do a certification thesis so while I was completing my senior thesis I would also be developing a skill that I could use to get a job after graduation. At first I thought about getting my Pilates certification, but after I researched different Pilates programs, I decided that I didn't have enough time to dedicate to a one-year program. However, this is definitely a certification I hope to obtain in the future.

I ultimately decided that for my senior thesis project I would get my personal training certification. I wanted to get my personal training certification for a few different reasons. One of the main reasons I chose to get my personal training certification was because I thought it would give me the opportunity to combine things that I have learned through my dance major and my athletic training major. Another reason I wanted to get my personal training certification was because I love working out and being active, so I hoped to learn more about this through the certification process. I also wanted to learn exercises that would be beneficial for dancers specifically. I believe that at times dancers can neglect the strengthening component of their training, so I was hoping to learn about how to help dancers improve their strength and muscular endurance specifically.

Over my time at LMU as a dance and athletic training major, I have become very interested in health and fitness. I have learned a lot about body control and strength in the Pilates lab, and I wanted to further that through another model. I

thought that getting my personal training certification would not only enhance my dance training, but it would also help me in my athletic training classes.

During my time at LMU, I have become more interested in how athletes can reach their peak physical performance (dance falling into this category) more so than the artistic side of dance. Although I appreciate and value the artistic qualities of dance, I have become more interested in what makes an athlete be their best or most successful self. My thesis project gave me the opportunity to learn more about different training components that affect the physical performance of a regular population, an athletic population, and how I could apply this information to dancers.

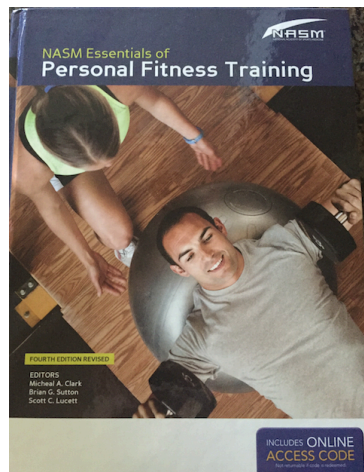
When I decided to get my personal training certification, I had hoped to learn how to plan exercise routines for all different types of individuals. In my athletic training classes, I had learned how to create rehabilitative programs for individuals recovering from injuries, but I had never focused only on overall fitness as the goal of an exercise program. I also was hoping to learn the proper techniques that should be used when performing various exercises. I had always had some knowledge of what the exercise technique should be based on what I had learned in my anatomy and physiology class, but I was hoping to gain a more clear understanding of proper technique to get the maximal benefits from the exercises.

The biggest challenge for me going into my thesis project was the unknown. I wasn't sure how difficult the material would be to learn and understand. I was worried that I may not understand some of the material while I was reading the textbook and doing the online learning modules. I also thought that it might be

challenging to manage all of the work it would take to learn and study the material. During the first half of the summer while I was working on my certification, I was taking an online summer class and working as an orientation leader at LMU. Then for the second part of the summer I was still taking the online class and also taking Physics II at LMU. I was worried I wouldn't have adequate time to devote to my certification process. Additionally I thought that some of the material and memorization would be challenging for me.

I began my thesis project by selecting the personal training certification program I wanted to complete. I talked to a friend who is as a personal trainer at the LMU Burns Recreation Center about what certifications they prefer their personal trainers to have. I also talked to my exercise physiology professor about what program she would recommend based on the program's scientific and practical approach to exercise. My friend and professor both recommended the National Academy of Sports Medicine program or the American College of Sports Medicine programs as the "gold standards" of personal training. Ultimately I chose the National Academy of Sports Medicine (NASM) Certified Personal Trainer (CPT) course and exam. I chose this because they offered an in person class in addition to the textbook and online modules. Also, the NASM offers different specializations such as Youth Exercise Specialization, Corrective Exercise Specialization, and Weight Loss Specialization. These additional specializations provide the opportunity for further education and professional development once the initial certification is achieved.

I registered with the NASM to complete their certification process and then received a textbook that contained all of the information that would be on the certification exam. Additionally, I also received access to an online database that contained videos that explained the material along with activities to test your understanding of the material. The book is titled, *NASM Essentials of Personal Fitness Training*, shown below



Section 2: The Process

After I had decided to complete the NASM Personal Training Certification, I completed my online registration and made sure that my CPR/AED certifications were up to date. I received all of my materials for my certification at the end of April 2015, however I waited until spring semester was over to begin studying. The NASM provides a recommended order that you work through the textbook and online material; I followed this order throughout the process.

For each chapter, I began by reading and taking notes on it. From there I would watch the online video that explained the material again. After I finished

watching the videos I would complete the online activities. Sometimes these activities were multiple-choice questions, fill in the blank, matching terms to definitions, drag and drop, complete the chart, and labeling or classifying images. Below is an example of one of the online learning activities from the chapter about program design

Program Design Continuum NASM

Drag each acute variable from the bottom and drop it into the correct box at the top to complete the table. Then click submit.

Submit

Plyometric Training Program Design					
Adaptation	Reps	Sets	Intensity	Tempo	Rest Periods
Muscular endurance/stabilization		1-3	50-70% of 1RM		0-90 s
Hypertrophy	6-12	3-5			0-60s
Maximal strength		4-6	85-100% of 1 RM	Fast/explosive	
Power	1-10	3-6			3-5 min

Acute Variables

12-20	Fast/explosive	Slow (4/2/1)	75-85% of 1RM
30-45% of 1RM or ≤10% of body weight	3-5 min	Moderate (2/0/2)	1-5

Sometimes it was challenging to pay attention while I was doing the online videos because I had just read the material. I found that if I took a little break between reading and doing the online videos I was able to focus more on the video. The videos were helpful because depending on the material the video covered, they would show physical demonstrations of different exercises. Since I tend to learn more by observing and watching, I benefited from the visual representation of how the exercises should be executed.

The first chapter I studied was the “Scientific Rationale for Integrated Training”. This chapter covered the origins of today’s fitness environment and common health conditions that individuals beginning an exercise program may have. It also covered NASM’s unique model called the Optimum Performance Training

Model, which breaks fitness training into three main phases with additional sub-phases.

The second chapter I studied was “Developing a Successful Personal Training Business” and it was all about different work place settings for personal trainers, creating a resume, and how to market your skills to potential clients and employers.

“Lifestyle Modification and Behavioral Coaching” was the next chapter I studied. This chapter outlined expectations that clients will have of their personal trainer and also of the environment they will be working out in. It also outlined the stages of change an individual goes through psychologically when beginning an exercise program. The chapter covered how to address clients depending on what stage they are currently experiencing. It also covered barriers to exercise that clients may experience and how to enhance their adherence to their exercise routines. This included setting “SMART” (Specific, Attainable, Realistic, and Timely) goals and creating a way to hold the client accountable to meeting their goals. This chapter was really interesting to me because it introduced a whole other area of personal training that I hadn’t thought of before. Once I finished studying all of the material it made sense why this was such an important topic to cover in the course.

After the first three chapters of material, I really began to dive into content about the human body including chapters titled “Basic Exercise Science”, “Cardiorespiratory System”, “Exercise Metabolism and Bioenergetics”, “Human Movement Science”, and an appendix covering the anatomical bones and muscles of the body. These chapters were all review for me because I had previously learned

the material in various athletic training classes. However, I found it helpful to review all of these subjects. Having a previous knowledge of these subjects was definitely beneficial to me.

The next chapter was one of the most important chapters that the course covered, “Fitness Assessment”. This chapter covered all the different components that need to be included in a fitness assessment before the client begins an exercise program. I was familiar with some of the components, but there were others that I was not familiar with.

After I had studied the chapters I mentioned above, I attended a workshop lead by a NSAM staff member. The workshop focused on preparing individuals to take (and pass) the NASM CPT exam. The workshop went over common concepts that people struggle with on the exam. The facilitator also explained the structure of the exam, which I thought was helpful so I knew what to expect going into the exam.

The next chapters began to cover the different components of comprehensive training. “Flexibility Training Concepts” covered different types of stretching and when it is appropriate to use each based on the desired outcomes.

“Cardiorespiratory Fitness Training” explained different training approaches based on the client’s current fitness level, desired outcomes, and their maximum heart rate. It also explained the three different stages of cardiorespiratory training. “Core Training Concepts” discussed the different stabilization systems within the body and how to use the OPT model when progressing a client through core stabilization and strengthening exercises. The “Balance Training Concepts” chapter emphasized

incorporating balance in the stabilization, strength, and power phases of exercise progression.

“Plyometric Training Concepts” were covered in the next chapter. Plyometric training involves exercises that generate quick and powerful movements, so it is very important to know the proper progression and technique when instructing a client in plyometric exercises. The next chapter covered “Speed, Agility, and Quickness Training”. This chapter explained these different elements, and clarified what makes speed, agility, and quickness exercises different from plyometric exercises. This chapter also explained how to safely incorporate speed, agility, and quickness training into exercise routines for all different types of clients.

I found the chapter “Resistance Training Concepts” to be very helpful. I learned a lot from reading this chapter, watching the demonstration videos, and doing the online exercises. This chapter detailed how the body responds to resistance (weights) training and how you should progress a client through the different phases of training when they first begin a resistance-training program. The first phase is the stabilization phase, then the endurance phase, then hypertrophy, followed by strength, and the final stage being power. This chapter also explained different training systems commonly used in exercise programs. Two examples include the pyramid system and circuit training. It was really helpful for me to learn about the different training systems and what each type of system is ideal for achieving.

The next chapter, “Integrated Program Design and the OPT Model” was also extremely helpful for me. It explained how to design an exercise program

depending on the client's needs, specifically how to alter variables of exercise. These variables include repetitions, sets, intensity, tempo, rest interval, volume, frequency, and duration. Additionally, it explained how to select exercises for the client based on their current exercise plan. Exercise plans can be set for different lengths of time (annual, monthly, and weekly). The chapter also covered the main focus of each of the three main phases of the OPT model and their sub-phases.

"Introduction to Exercise Modalities" was the next chapter that I studied. This chapter explained different machines and equipment that are commonly found in gyms. I learned about the pros and cons of each type of equipment, which I found to be extremely helpful and applicable information.

I found "Chronic Health Considerations and Physical or Functional Limitations" to be a helpful chapter because it explained how to modify exercise for individuals who do not fall within the category of healthy adults. Some of these special populations include youth, seniors and individuals with chronic conditions such as hypertension, arthritis, and diabetes, just to name a few.

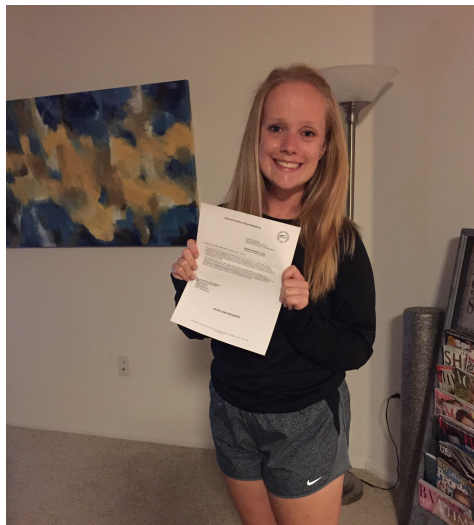
The final two chapters were "Nutrition" and "Supplementation". Although as a personal trainer you are not qualified to provide diet plans or prescribe supplements, clients will often ask you about these things. It is important that you are able to explain the general concepts to them. I had learned about both of these subjects before in class, but this chapter was a helpful review. This chapter also helped me to better understand how to apply what I had learned previously to an active setting.

Once I finished going through the whole book and online modules, I began reviewing the material and studying for the exam. I also completed online practice tests. Although I had spent almost two months studying and preparing for the exam, I was still very nervous going into it. It was challenging because I felt like I was studying and reviewing, but the unknown of what could be on the exam was nerve wracking. There were 120 questions on the exam, so it was hard to know exactly what was going to be asked of me. I knew the categorical distribution of questions so that was helpful to know. I took the exam on August 26, 2015 and I passed.

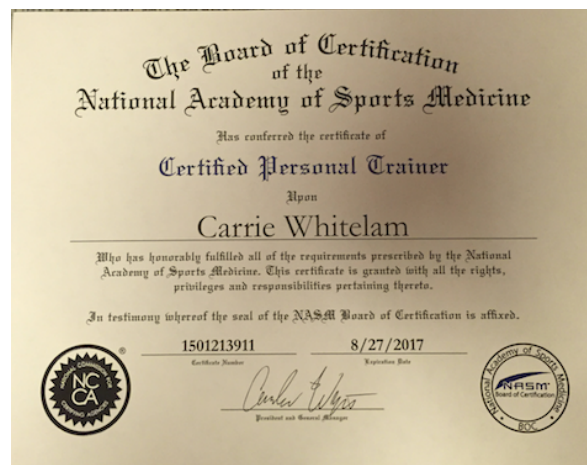
There isn't really anything I would have done differently in the process of learning and preparing for my certification. However, I do wish that I had the time to try and work as a personal trainer as soon as I got my certification. That would have challenged me to step outside my comfort zone and apply what I had just spent so much time learning and studying. The idea of people relying on me to design their exercise program and teach them how to do it makes me very nervous. Also, as a personal trainer you have to market yourself a lot to potential clients or employers, and this is something that I am not comfortable doing. However, I know that because of my thesis project certification and my athletic training experience, I am capable of developing exercise routines and I have the qualifications to be hired by clients or employers.

Section 3: The Result

As I have previously mentioned, the final product of my thesis project was passing the NASM CPT exam and obtaining my NASM personal training certification. Upon completing the exam, the testing center gives you a letter saying whether or not you have passed the exam. Below is a photo of me with a letter saying that I passed the exam.



A few weeks following the exam, I was mailed an official certificate containing my certification number. Below is an image of the certificate of my certification.



I am extremely happy with the final product of my certification thesis project. I passed the exam on my first try and received my personal training certification. Even though the main goal of my thesis project was to obtain my personal training certification, there were other things that I had hoped to accomplish during the process. Through my thesis certification, I had hoped to combine things that I have learned as an athletic training major and as a dance major. I was definitely able to utilize many things I have learned in my athletic training classes. There were times where I was able to find connections between things I have learned in dance classes and the material, however these moments were much more common between my athletic training classes and the material I was studying for the certification.

Another thing that I had wanted to learn more about was how to create an efficient exercise routine depending on the client's goals and needs. I definitely feel like I accomplished this. The CPT course talked a lot about how to get the most benefit out of exercises depending on individual goals and needs. This was exactly what I had been hoping to learn through my certification process.

My CPT course covered a lot of material about creating and implementing exercise programs for individuals of varying activity levels as well as with different chronic or acute conditions. This was really interesting to me, because this was something that I had hoped to learn. My mom has a chronic illness (Lupus and Rheumatoid arthritis) and I was able to create a program for her to follow.

Learning about the 3 different phases of exercise and their sub-phases was useful. It gave me the knowledge of how to progress an exercise program based on

the clients needs in their current phase. This was something that I had wanted to learn about, so I'm really happy about that outcome of my thesis certification.

I had hoped to learn about the proper techniques to use when performing various exercises. One of the things that was really emphasized in the textbook was the proper technique and form to use when performing squats. I found this helpful, and I now know what I should be looking for in a client when they are performing a squat. However, I wish that I had learned a bit more detail about the technique and form used for other exercises. The course covered the proper technique for all of the exercises the textbook covered, however I think that I would feel more confident if it had explained the techniques in more detail or showed more examples in the online videos.

Although the course never specifically identifies exercises exclusively for athletic populations, I felt like I was able to see what would be beneficial for dancers. In our dance classes we talk a lot about what muscles need to be active during different steps/exercises, or what overall training needs to occur. Through my certification, I was able to learn exercises and approaches to exercise that would help improve a dancer's overall performance. For example there are exercise that can help strengthen external rotators, hamstrings, back, and core just to name a few. I think that these exercises especially would be applicable to dancers.

Overall my thesis project feels fulfilling. I accomplished my goal, and I learned a lot of new information during the process. Some of the information I learned helped me when I was preparing for my Board of Certification exam to become a Certified Athletic Trainer. Additionally, the study habits and routines I

developed for myself during my thesis project helped me when I was studying for the Athletic Training exam.

I do wish I had more opportunities to apply what I learned through my certification in a practical setting. Due to the rigorous demands of completing my double degree, athletic training internships and studying for the athletic training certification exam I was not able to find time to work with clients as a personal trainer. I have developed a few exercise routines for friends and family based on what I learned in my personal training certification for my senior thesis project. However, I wish that I had an opportunity to do this directly following the completion of my thesis project.

Section 4: What's Next

The work I did for my senior thesis will definitely help me in the future. It has given me the qualifications to work as a personal trainer in any type of setting. I also can take the basic certification I obtained and receive additional specializations such as Corrective Exercise Specialist, Fitness Nutrition Specialist, Youth Exercise Specialist, or Performance Enhancement Specialist. I also could use what I learned through my thesis project and what I have learned in the Pilates lab at LMU to eventually get Pilates certified.

Throughout my time at LMU based on my experiences in the dance department and the health and human science department, I have become really interested in overall health and wellness. This includes preventing, treating, and recovering from illness and injury. I think that that there are many important

components to this including exercise and nutrition. My thesis project has given me an abundance of information to work with regarding exercise. Based on this, I can see myself continuing my education in this field.

I definitely see myself attending graduate school to study something related to the health sciences, potentially nutrition. What I have learned at LMU as a dance and athletic training major has given me a very strong foundation to build upon at a graduate school.

In a year, I see myself applying for a graduate school. Because there is so much that goes into getting accepted to a graduate school, I think that within a year I will be ready for this. I need to study for and take the GRE, as well as potentially taking a few classes that I didn't take while at LMU (such as organic chemistry and biochemistry).

My ultimate goal in the next 5-10 years would be to become the next Jillian Michaels. Jillian Michaels is a well-known fitness trainer, she is most well known for being on the TV show *The Biggest Loser*. She holds many different fitness certifications including one from the Aerobics and Fitness Association of America and the National Exercise & Sports Trainers Association. She has brought so much knowledge about exercise and nutrition to the general public. I aspire to have that type of impact on people, even if it is on a smaller scale. By attending a graduate school program in the health science field, I would be equipped with a greater wealth of knowledge to share with a larger audience. The things I have learned through my senior thesis project give me a strong foundation to continue building my knowledge upon.

Jillian Michaels has a well-known quote in which she said, "It's not about perfect. It's about effort. And when you bring that effort every single day, that's where transformation happens. That's how change occurs." I think that this is an important quote that applies to me as I strive towards my future goals. Additionally I think this is a great quote for dancers to remember while they are training. Through my thesis project I have begun to see that fitness, just like dancing, is a process. I hope to continue learning and challenging myself past the date of graduation from LMU.